Oral Health: A Toothpaste Containing Curcumin And Melatonin Will Kill Cells In Your Mouth

By Joachim Bartoll | Jan. 2nd, 2025

Today we return to Examine.com and a review of yet another idiotic study where they fail to explain what they found and how dangerous to your health it actually is.

Also, this should be a no-brainer as we know that curcumin is a very potent poison and that synthetic melatonin is not the same as the melatonin naturally produced by the body, even if the chemical structure is almost identical and it can bind to melatonin receptors. But before we go deeper into biochemistry and real science, let's see what these muppets did.

> *"The effect of toothpaste containing curcumin, melatonin, or curcumin + melatonin on the composition of the periodontal microbiome.*
>
> *Specifically, the outcomes included the periodontal bacterial load of saprophytes (microorganisms that feed on dead or decaying organic matter) and pathogenic bacteria (microorganisms that can cause disease or infection)."*

Well, both curcumin and melatonin have "antioxidant" and "antimicrobial" effects. And anything that is not animal-based and labeled as an "antioxidant" is not compatible with human physiology as it is an "antioxidant" in a plant that is totally different biologically than a human being of flesh and blood. Thus, what these muppets call "antioxidant properties" will simply be very toxic and damaging properties if ingested by a human. This is basic level biology and biochemistry.

Antioxidants are often touted as a beneficial substance that helps protect our bodies from oxidative stress and damage caused by free radicals. However, a closer look at the natural world reveals that antioxidants are actually a defense mechanism used by plants to protect themselves from predators, including humans.

In physiology, biology, and biochemistry, **antioxidants in plants are indeed equivalent to defense chemicals**. Plants produce a wide range of antioxidant compounds, including polyphenols, flavonoids, terpenoids, and ascorbate (vitamin C), as part of their defense mechanisms against various stresses, such as:

- Oxidative damage caused by reactive oxygen species (ROS)
- Pathogen attacks
- Insect and herbivore damage
- Environmental stresses like drought, salinity, and UV radiation

While antioxidants have been extensively studied in vitro, demonstrating their ability to neutralize free radicals in laboratory settings, **there is a lack of conclusive evidence supporting their efficacy in vivo, specifically within living human beings**.

In plants, antioxidants and defense chemicals are one and the same. These compounds, such as polyphenols, flavonoids, and terpenoids, are produced as a response to environmental stressors like pathogens, insects, and UV radiation. While they play a crucial role in protecting plants from oxidative damage and defending against foreign invaders, they can be highly toxic to humans.

Toxicity to Humans

When ingested or absorbed through the skin, these plant-derived antioxidants can cause significant cellular damage in humans. They can:

- Interact with human enzymes and proteins, disrupting normal cellular functions
- Generate reactive oxygen species (ROS) instead of neutralizing them, exacerbating oxidative stress
- Trigger inflammatory responses and allergic reactions

Cellular Damage

The toxic effects of plant antioxidants can manifest in various ways, including:

- DNA damage and mutations
- Protein misfolding and aggregation
- Lipid peroxidation and membrane damage
- Apoptosis (programmed cell death) or necrosis

So, if used within the mouth, as in a toothpaste, some bacteria might be killed and reduced, all while there will also be damage to any tissues within the mouth that these toxins come in contact with. That is simple common sense.

> *"20 adults (average age of 31; 12 men, 8 women) without known health conditions."*

Ok, carry on.

> *"An 8-week randomized controlled trial was conducted in which the participants were allocated to one of the following interventions:*
>
> - *Standard toothpaste (placebo)*
> - *Toothpaste containing curcumin*
> - *Toothpaste containing melatonin*
> - *Toothpaste containing curcumin + melatonin*
>
> *All of the participants received oral hygiene instructions to follow for the duration of the trial."*

Natural melatonin is produced by the pineal gland in the brain through a four-step pathway using L-tryptophan as a precursor. Artificial melatonin as a supplement is synthesized using toxic solvents and catalysts, and while the molecular structure of natural and synthetic melatonin is almost identical, the synthetic version may have varying levels of purity and potency. Also, the synthetic version will have a different profile of antioxidant activity, as it's not a natural bioactive source of melatonin, which means that it will damage cells.

Molecular Structure: The molecular structure of natural and synthetic melatonin is the same, but the synthetic version may have varying levels of purity and potency.

Metabolism: Natural melatonin is metabolized by the body in a specific way, with a certain half-life and metabolic pathway, whereas synthetic melatonin may be metabolized differently due to variations in its molecular structure or the presence of impurities.

Receptor Binding: Natural melatonin binds to specific receptors in the body, such as MT1 and MT2, to produce its effects, whereas synthetic melatonin may have varying levels of receptor binding affinity and specificity.

Bioavailability: The bioavailability of natural melatonin is influenced by factors such as the timing of release, the presence of other hormones and neurotransmitters, and the individual's overall health, whereas synthetic melatonin may have a different bioavailability profile due to its chemical formulation and method of administration.

Side Effects: Natural melatonin production is generally not associated with significant side effects, whereas synthetic melatonin can cause side effects such as dizziness, nausea, and headaches, particularly at high doses or with prolonged use.

Interactions: Natural melatonin interacts with other hormones and neurotransmitters in the body, such as serotonin and dopamine, to produce its effects, whereas synthetic melatonin may interact with other medications or substances in unpredictable ways.

Curcumin is a toxic plant defense chemical with antimicrobial properties where it disrupts cell membranes, effectively killing some microorganisms but also damaging any human cells it comes in contact with.

According to biology, physiology, and biochemistry, curcumin has been found to have various properties beyond its toxicity as a defense chemical. While it is known for its potential to interact with several proteins and cause adverse effects, curcumin also exhibits antimicrobial, anti-inflammatory, and antioxidant activities.

According to biology, physiology, and biochemistry, curcumin, a compound found in turmeric, exhibits antimicrobial properties that can be both beneficial and harmful. While it has been shown to inhibit the growth of certain microorganisms, its toxicity can also extend to beneficial bacteria, potentially disrupting the balance of the gut microbiome.

Furthermore, **curcumin's chemical properties can cause damage to tissues, including the liver, due to its ability to interact with various proteins and enzymes**. This interaction can lead to adverse effects, such as liver injury, as reported in several cases between 2004 and 2022. The compound's poor bioavailability and instability also limit its potential therapeutic applications.

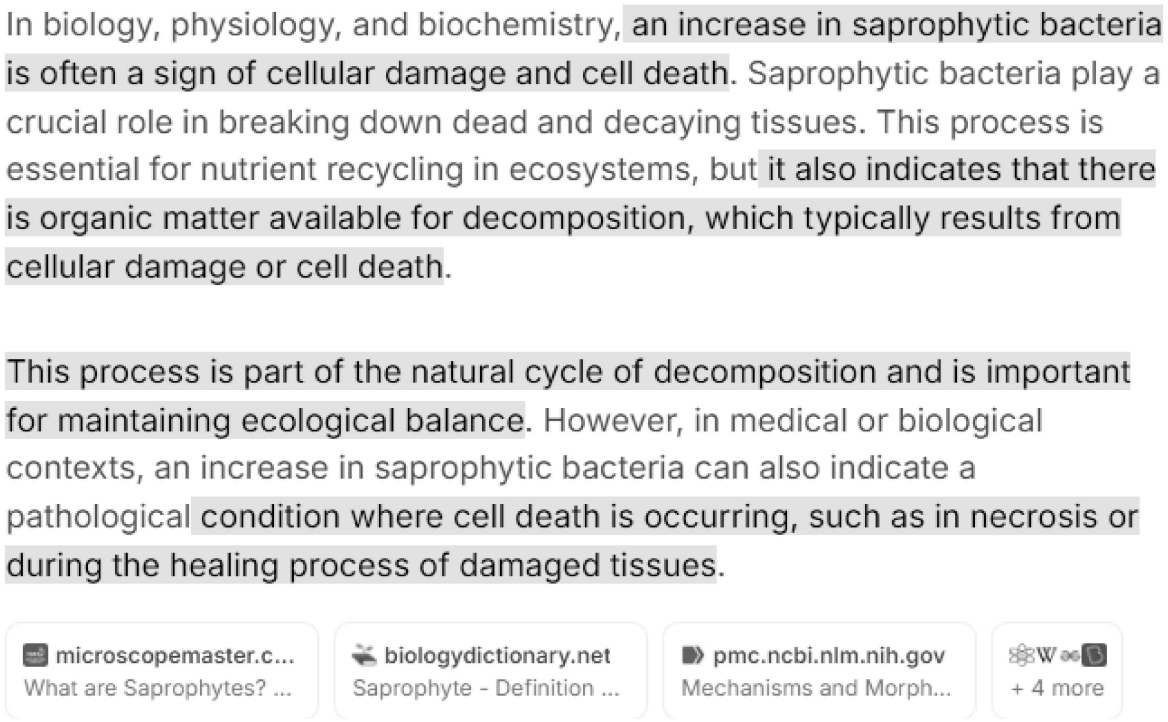
In addition to its antimicrobial properties, curcumin has been found to have antioxidant and anti-inflammatory activities. However, its promiscuous nature, interacting with multiple proteins, including hERG, cytochrome P450s, and glutathione S-transferase, increases the risk of adverse effects. As a result, curcumin's use as a medical treatment is not supported by well-designed clinical research, despite its traditional use in various medicinal systems, including Ayurveda and Traditional Chinese Medicine.

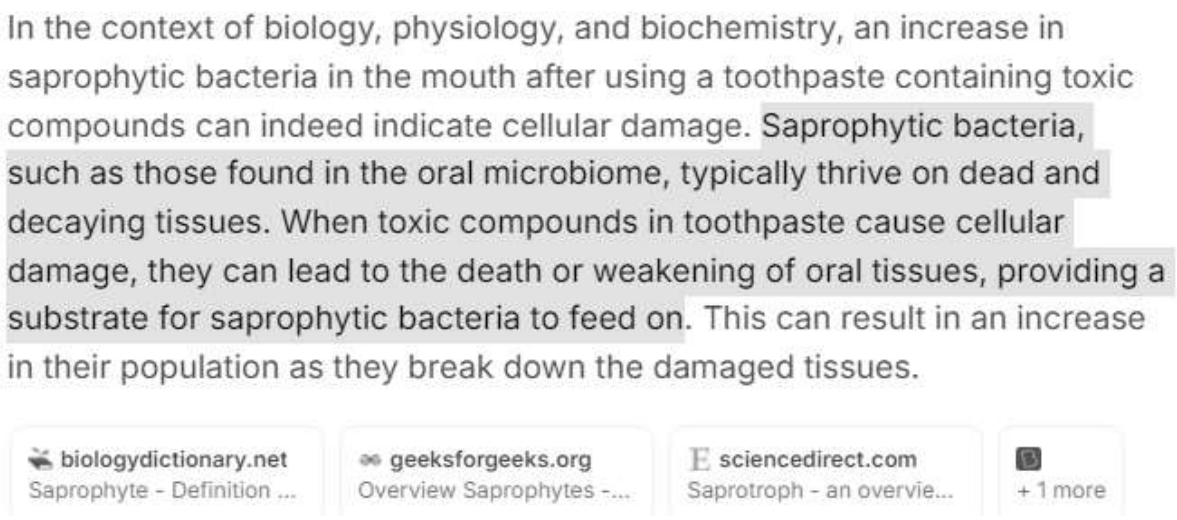
Now, while both these compounds are toxic, using them in a toothpaste will limit exposure to the mouth area and it's also a very time-limited exposure. Although, some absorption will occur (through the mucous membranes) and some of the compounds will reach the bloodstream, the amounts are very small. Also, curcumin is mostly dangerous if ingested as it's very toxic to the epithelial cells, as in the thin layer of cells that lines the outer surfaces of organs and structures within the body. So simply having it in your mouth and then spit it out should mitigate most of that damage. Well, let's see what happened in their otiose study.

> *"The bacterial load of saprophytes increased with the toothpastes that contained curcumin, melatonin, and curcumin + melatonin and decreased with the placebo toothpaste, and the differences between the intervention toothpastes and the placebo toothpaste were statistically significant. In terms*

> *of effect size, the largest increase in saprophyte bacterial load was observed with the curcumin + melatonin toothpaste, followed by the melatonin toothpaste and the curcumin toothpaste, and the difference between the curcumin + melatonin toothpaste and the curcumin toothpaste was statistically significant."*

This is not a good thing. Remember, they even mentioned that saprophyte bacteria's primary function is to break down dead and decaying organic matter, which includes dead cells and other debris. If there was such debris from the food ingested, saprophyte bacteria should decrease when you clean out the mouth and remove all that debris. Instead, the saprophyte bacterial load increased after using the toothpaste with curcumin and melatonin. This can only mean that these two toxic compounds damaged and killed cells within the mouth and thus saprophytic bacteria multiplied to clear out the waste so the body can begin its healing process.





In other words, this confirms the toxicity of curcumin and artificial melatonin, and that is from a very short exposure to the mouth only. Just imagine what would happen if ingested. While artificial melatonin is a simple indoleamine compound and will quickly be converted and used by the body while producing some toxic waste products, curcumin is plant-based and therefore completely incompatible with our body, doing great damage, especially to the liver (as we have proven in previous articles.)

> *"Pathogenic bacterial load decreased with the toothpastes that contained curcumin, melatonin, and curcumin + melatonin and increased with the placebo toothpaste, and the differences between the intervention toothpastes and the placebo toothpaste were statistically significant. In terms of effect size, the largest decrease in pathogenic bacterial load was observed with the curcumin + melatonin toothpaste, followed by the melatonin toothpaste and the curcumin toothpaste, and the difference between the curcumin + melatonin toothpaste and the curcumin toothpaste was statistically significant."*

As both compounds are antimicrobial, this is no surprise. The problem with this is that while any kind of bacteria that ferments on unnatural compounds such as carbohydrates/sugar and fiber can be very damaging to the teeth and the tissues and thus need to be kept low or eliminated, *other bacteria is needed for removing toxic compounds as well as dead cells and other debris.* And this highlights once again the retarded backwards thinking of the medical community and that of many researchers (and most of the sleeping masses,) just like the little muppets behind this ridiculous study.

According to biology, physiology, and biochemistry, melatonin has been found to have antimicrobial effects, which could be beneficial for oral health. However, using melatonin as a toothpaste ingredient may also have negative consequences, such as killing beneficial bacteria that are necessary for tissue healing and the removal of toxins, dead cells, and other debris.

Impact on Beneficial Bacteria: The use of melatonin in toothpaste may also eliminate beneficial bacteria in the oral cavity, which are essential for maintaining a healthy balance of microflora, facilitating tissue healing, and removing harmful substances.

Oral Health Implications: The disruption of the oral microbiome could lead to severe oral health implications, including impaired wound healing, increased susceptibility to infections, and potentially even systemic diseases.

Melatonin's antimicrobial effects can indeed be beneficial in killing pathogenic bacteria, but it also poses a risk to beneficial bacteria that are essential for maintaining a healthy microbiome balance. The microbiome plays a crucial role in healing, removing toxins, and overall health.

In conclusion, while melatonin's antimicrobial effects may be beneficial in certain contexts, its potential impact on the balance of the microbiome must be carefully considered to avoid any adverse health implications. Further research is needed to fully understand the complex relationships between melatonin, the microbiome, and overall health.

According to biology, physiology, and biochemistry, using curcumin as a toothpaste for oral health due to its antimicrobial effects may have both positive and negative implications. On one hand, curcumin's antimicrobial properties can help combat harmful bacteria in the mouth, reducing the risk of infections and promoting oral health. On the other hand, its broad-spectrum antimicrobial activity might also kill beneficial and protective bacteria that play a crucial role in tissue healing, removal of toxins, dead cells, and other debris.

For anyone else, with a higher level of understanding, killing bacteria is an idiotic idea, unless your body is extremely weak and at the brink of failing. Instead, you should eliminate anything that is not natural and not species-appropriate, as it is only these compounds that can increase bacteria that we obviously do not need and that can actually harm our tissues due to their fermentation and cleaning processes.

According to biology, physiology, and biochemistry, carbohydrates, particularly starches and sugars, can contribute to oral health problems. The bacteria in the mouth feed on these compounds, breaking them down and producing acid as a byproduct. This acidic environment can damage the enamel on teeth, leading to issues such as tooth decay and cavities.

- **Sucrose**: It is considered one of the worst carbohydrates for dental decay, as it is easily broken down by oral bacteria, resulting in the production of acid and increasing the risk of tooth decay.
- **Fructose**: While it serves as an energy source for oral cavity bacteria, it is not as directly harmful as sucrose in terms of dental decay.
- **Starches**: Complex carbohydrates like those found in potatoes, chickpeas, pasta, and wheat can also be broken down by oral bacteria, contributing to an acidic environment and potentially damaging tooth enamel.

Fat and protein do not directly damage teeth when chewed, unlike carbohydrates. Carbohydrates, once broken down in the mouth, can be converted into sugars that bacteria use to produce acids. These acids can then erode tooth enamel and lead to decay.

In other words, if you remove carbohydrates and fiber from your diet, there will never be any “pathogenic,” as in potentially destructive, bacteria in your mouth or in your colon. Thus, there will not be a need for stupid toothpastes that do much more harm than good. Actually, if you follow our natural species appropriate carnivore diet, you do not even need to brush your teeth more than

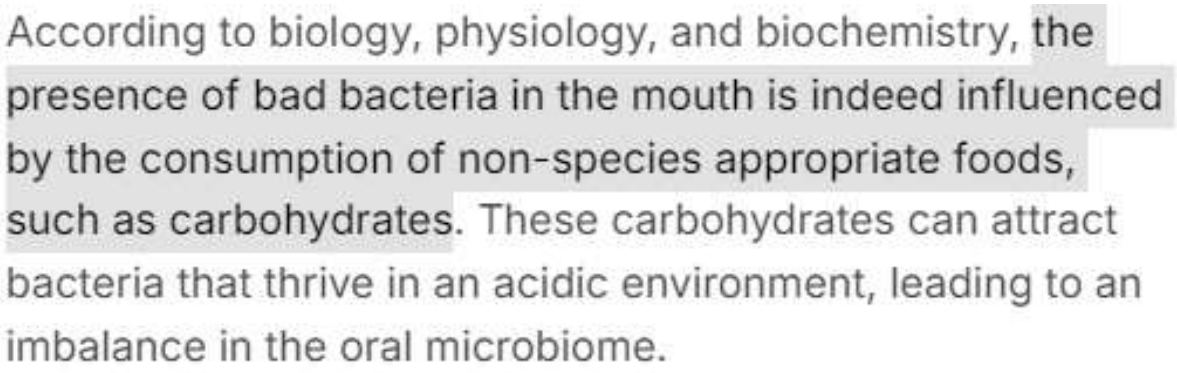
every once in a while, which is a very good thing as daily brushing destroys your gum, your enamel and bacterial defense.

Brushing your teeth more than necessary **can be damaging to your gums and enamel. Over-brushing can lead to dental abrasion, tooth sensitivity, and gum recession**. The use of commercial toothpaste with chemical compounds, such as sodium lauryl sulfate, **can also cause mouth irritation and canker sores**. Additionally, the abrasive ingredients in toothpaste can wear away the tooth enamel, especially if brushed too vigorously or frequently.

A very simple toothpaste can consist of a drop of coconut oil or simply water with a pinch of bicarbonate and sea salt. Coconut oil is slightly antimicrobial and can be a good choice if you consume dairy or something with a small amount of net carbs, while water is better for keeping the needed diversity of beneficial bacteria.

> *"Although the decrease in pathogenic bacterial load is beneficial, the increase in saprophyte bacterial load is not necessarily an improvement because their overgrowth could disrupt the balance of the oral microbiome."*

Again, not the whole truth if you understand microbiology and physiology. The increase in saprophytic bacteria is a temporary and natural result of the damage done to the cells in the mouth by these two toxic compounds. The real problem when we consider the balance of our oral microbiome is the beneficial bacteria that might be killed by these compounds in tandem with the "pathogenic" bacteria. This is what will really upset the balance. And again, totally unnecessarily considering that the problem of "pathogenic" bacteria is a result of consuming the completely wrong foods for our species in the first place. Always go after and eliminate the main cause of the problem, as in this case the diet, and never focus on the symptoms.



> *"The trial was funded by VITALEX HC SR, the manufacturer of the curcumin + melatonin toothpaste used in the trial."*

And that's why they did not mention anything of what I've added to the review of this ridiculous study. I bet they will only focus on the reduction of "pathogenic" bacteria in their advertisement campaigns.

Again, symptoms and effects are simply clues, you need to identify the underlying problem and remove it. And in this case, as it is about oral health, it is the diet, and especially the misguided consumption of carbohydrates and fiber. If you adhere to our natural human diet, as in carnivore, you will never have any oral health problems. Actually, your teeth will begin to remineralize and heal.

If you need help with any kind of health problems or transitioning from your current way of eating to our natural species-appropriate, species-specific way of eating, I'm available for both coaching and consultation.

Coaching and Consultation

And if you found the article and my insights helpful and enjoy my daily free information, please consider donating to help pay the webhosting bills and keep the site running. And if you're interested in discussing and sharing information with likeminded people, consider joining our uncensored community at Ungovernable.se. Thank you!

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